

IN THE CLAIMS

Please amend claims as follows:

1. (Currently Amended) A process for producing a rotor blade for a wind power system, wherein at least two rotor blade elements are arranged one behind the other in a longitudinal direction of the rotor blade and are glued together via at least one, ~~preferably at least two~~ connecting elements bridging a partition line between the rotor blade elements, ~~characterized in that~~ wherein at least one connecting element is aligned with said rotor blade elements, wherein a hollow space is formed between an outer delimitation surface of at least one of the rotor blade elements and at least one fixing segment of the inner delimitation surface of said connecting element, and subsequently the hollow space is flooded with an adhesive (~~resin~~).

2. (Currently Amended) The process according to claim 1, ~~characterized in that~~ wherein the alignment of the connecting element is locked before flooding the hollow space by gluing a locking rim of the inner delimitation surface of the connecting element, at least partially surrounding the fixing segment, to an outer delimitation surface of at least one of the rotor blade elements.

3. (Currently Amended) The process according to claim 2, ~~characterized in that~~ wherein said hollow space is sealed tightly at least in the region of the locking rim.

4. (Currently Amended) The process according to claim 2 or claim 3, ~~characterized in that~~ wherein the connecting element is glued to at least one of the rotor blade elements in the

region of the locking rim with a thickened epoxy resin and/or polyester resin.

5. (Currently Amended) The process according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein, for flooding, a negative pressure is generated in the hollow space ~~and/or~~ or the adhesive (~~resin~~) is pumped into the hollow space with overpressure.

6. (Currently Amended) The process according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the adhesive has ~~the hollow space is flooded with an adhesive~~ with a dynamic viscosity  $\eta$  in the range of about 130-230 Mpas, ~~preferably about 150-210,~~ particularly ~~preferably about 170-190, in particular about 180 Mpas~~ and/or and a kinematic viscosity  $\eta/\rho$  in the range of about  $1.2 - 2 \times 10^5 \text{ m}^2/\text{s}$ , ~~preferably  $1.4 - 1.8 \times 10^5 \text{ m}^2/\text{s}$ , in particular about  $1.6 \times 10^5 \text{ m}^2/\text{s}$ .~~

7. (Currently Amended) The process according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the adhesive is either a ~~said hollow space is flooded with liquid~~ epoxy resin ~~and/or~~ or polyester resin.

8. (Currently Amended) The process according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein after flooding, the adhesive hardens ~~either at room temperature~~ and/or or for a period of time of approximately 6 to 10 hours at a temperature of about 70°C.

9. ((Currently Amended) The process according to ~~one of the preceding claims~~ claim 5, ~~characterized in that~~ wherein the supply of ~~resin-adhesive~~ is effected at the deepest location of the hollow space as seen from the outer delimitation surface of the rotor blade ~~and/or~~

or the negative pressure is generated at the location which is located highest.

10. (Currently Amended) The process according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein said rotor blade elements are produced in the same mold, in which, at the desired place of separation, a forming part, and, if necessary, for the formation of the hollow space, a separating film is inserted.

11. (Currently Amended) The process according to claim 10, ~~characterized in that~~ wherein at least one connecting element is produced in the same mold as the rotor blade elements.

12. (Currently Amended) A rotor blade for ~~the~~ a rotor of a wind power system ~~produced by means of a process according to one of the preceding claims~~ having at least two rotor blade elements arranged one behind the other in a longitudinal direction of the rotor blade and being glued together, comprising at least one, ~~preferably at least two~~ connecting elements bridging a partition line between the rotor blade elements and having at least two adherend segments, wherein each of them is glued together with one of the rotor blade elements over a large surface.

13. (Currently Amended) The rotor blade according to claim 12, ~~characterized in that~~ wherein said at least one connecting element is at least partially accommodated in a recess formed by the outer delimitation surfaces of the rotor blade elements in the region of the separation line.

14. (Currently Amended) The rotor blade according to claim 13, ~~characterized in that~~ wherein said recess at least partially surrounds the longitudinal axis of the rotor blade.

15. (Currently Amended) The rotor blade according to claim 13 or claim 14, ~~characterized in that~~ wherein the outer circumference of at least one rotor blade element tapers towards the separation line ~~preferably~~ in a wedge-shaped manner in a cutting plane extending perpendicularly to the longitudinal axis for forming the recess.

16. (Currently Amended) The rotor blade according to claim 15 ~~one of claims 13 to 15, characterized in that~~ wherein said connecting element has an inner delimitation surface extending in a complementary manner to the profile of the recess.

17. (Currently Amended) The rotor blade according to claim 16 ~~one of claims 13 to 16, characterized in that~~ wherein the connecting element has an outer surface which is flush with the adjacent regions of the outer surfaces of the rotor blade elements.

18. (Currently Amended) The rotor blade according to claim 17 ~~one claims 1 to 17, characterized in that~~ wherein at least one connecting element has a construction corresponding to the construction of adjacent regions of the rotor blade elements, ~~preferably a laminate-shaped construction.~~

19. (Currently Amended) The rotor blade according to claim 12 ~~one of the preceding claims, characterized in that~~ wherein at least one rotor blade element is constructed as a hollow body with a shell accommodating at least one bar absorbing bending forces.

20. (Currently Amended) A wind power system ~~according to one of claims 12 to 19~~ ~~having,~~ comprising a rotor having at least one rotor blade and being pivoted about a rotor axis extending approximately horizontally, wherein the rotor blade comprises at least two rotor blade elements arranged one behind the other in a longitudinal direction of the rotor blade and being glued together, comprising at least one connecting elements bridging a partition line between the rotor blade elements and having at least two adherend segments, wherein each of them is glued together with one of the rotor blade elements over a large surface.

21. (Currently Amended) A rotor blade element for the rotor of a wind power system, wherein the rotor blade element is connectable with at least one further rotor blade element to form a rotor blade, wherein the rotor blade element and the at least one further rotor blade element are arranged one behind the other in a longitudinal direction of the rotor blade, and the rotor blade element has a recess at the end connectable with the further rotor blade element which is part of a space filled with adhesive in the connected state.

22. (Currently Amended) ~~A~~ The rotor blade element of claim 21, further ~~for a rotor blade of a wind power system, comprising:~~

a shell; and

a diminution of the shell facing a separation line; wherein the diminution is designed to form a hollow space with a connecting element necessary for assembly of the rotor blade.

23. (Currently Amended) The rotor blade element according to claim 22 ~~one of claims 21 to 22,~~ wherein the rotor blade element is a prefabricated longitudinal module.

24. (Currently Amended) The rotor blade element according to claim 23 ~~one of~~  
~~claims 21 to 23~~, wherein the shell of the rotor blade element is one piece.

25. (Currently Amended) The rotor blade element according to claim 24 ~~one of~~  
~~claims 21 to 24~~, wherein the rotor blade element is at least four meters long.

26. (Original) A connecting element for connecting rotor blade elements for a rotor  
blade of a wind power system, comprising:

at least two fixing segments, and

locking segments surrounding said fixing segments,

wherein the connecting element has diminutions directed outwardly in the direction of the  
longitudinal axis of the rotor blade elements to be connected, and

wherein the diminutions are formed in such a way that the connecting element forms a  
hollow space with the rotor blade elements to be connected.

27. (New) The process according to claim 1, wherein the adhesive is resin.

28. (New) The process according to claim 1, wherein the adhesive has a dynamic  
viscosity  $\eta$  in the range of about 150-210 Mpas, and a kinematic viscosity  $\eta/\rho$  in the range of  
about  $1.4 - 1.8 \times 10^5 \text{ m}^2/\text{s}$ .

29. (New) The process according to claim 1, wherein the adhesive has a dynamic viscosity  $\eta$  in the range of about 170-190 Mpas, and a kinematic viscosity  $\eta/\rho$  in the range of about  $1.6 - 1.8 \times 10^5 \text{ m}^2/\text{s}$ .

30. (New) The process according to claim 1, wherein the adhesive has a dynamic viscosity  $\eta$  of about 180.

31. (New) The rotor blade according to claim 18, wherein the construction of the at least one connecting elements is a laminate-shaped construction.